New Species of Pogonocherus, with Synoptic Table.

By H. C. Fall.

Four species of this genus—*negundo, arizonicus, californicus* and *alaskaus*—have been more or less recently described by Mr. Schaeffer. Three more are made known in the present paper—bringing the number of known forms within our faunal limits up to twelve. As only the five of the Henshaw List were known when Leng and Hamilton presented the last synoptic table (Trans. Am. Ent. Soc. 1896, p. 135) a new table is herewith appended.

P. obscurus n. sp.

Moderately stout, black, clothed not very densely with appressed blackish and ashy grey hairs, the latter predominating, especially in a slightly antemedian discal area which extends forward laterally to the humeri; the elytra with four series of small black tufts of short erect hairs, the inner series close to the suture, the three outer ones occupying the positions of the costae, which, however, are feebly or scarcely evident in this species. Entire body above, antennae, legs and sides of abdomen clothed with long flying hairs, which are for the most part blackish on the upper surface and pale beneath. Antennae one-third longer than the body in the male, slightly longer than the body in the female, the longer joints in great part pale, the outer ones black in apical half; scape more than four times as long as wide. Prothorax about as long as wide, lateral tubercles obtuse, discal ones moderate. Legs black, the tibiae variegated with pale hairs. Last ventral segment rounded at apex in the male, truncate with the apex beveled or obliquely ascending in the female. Length 7-9 mm.; width 2.6-3.4 mm.

Described from 2 ♂'s and 1 ♀ kindly given me by Mr. Schwarz, who took them at Bright Angel, Arizona.

This species is rather closely allied to *negundo*, but is readily separated by the tabular characters. It is perhaps even closer to *californicus*, but as this latter is compared by its describer with *oregonus*, I have so associated it in the following table. There is before me a specimen taken by Dr. Fenyes in the San Bernardino Mountains of California, which I refer with some confidence to *californicus*. It is very near *obscurus*, but the long hairs are shorter and less numerous throughout, and all those arising from the antennae are white, while in *obscurus* they are brown and white, the brown predominating.

P. propinquus n. sp.

Piceous, elytra variegated with testaceous, somewhat thinly clothed with brown and grayish white recumbent hairs, the latter, however, condensed in a fascia at the anterior third of the elytra, running obliquely forward exteriorly to a point beneath the humeral umbone, but not reaching the side margin. The fascia is sharply defined posteriorly, but anteriorly merges into an area of pale hairs within the humeri. Behind the fascia the surface is irregularly variegated with pale and dark shades, the paler color predominating toward the apex. Entire upper surface with scattered longer erect blackish hairs, the legs and antennae with hairs of moderate length. Antennae as long as the body (♀), joints pale at base, the scape nearly three times as long as wide. Prothorax slightly transverse, lateral and discal prominences moderately strong, but not acute, median line with a small oval polished tubercle at posterior third. Elytra tricostate, the lateral costae strong, the inner one much less so and bearing a series of four tufts of short erect black hairs, disk sparsely moderately punctured between the costae; elytral apices emarginate, the outer angle more distinct than the inner. Femora black, pale at base; tibiae annulate; basal joint of hind tarsi nearly as long as the next two. Abdomen without erect hairs, last segment (♀) with a transverse apical fovea. Length 9 mm.; width 3 mm.

San Bernardino Mountains, California, 6200 feet. A single female collected by Mr. Joseph Grinnell. This species is rather closely allied to *penicellatus,* but sufficiently distinct by the lateral costa subinterrupted at base, and by the different disposition of the pale markings.

P. pictus n. sp.

Closely related to *mixtus,* and hitherto regarded as a form of that species. It seems to differ constantly from the latter in the denser whiter sub-basal area which broadly reaches the suture but fails to attain the side margin; the dark areas are also blacker and contrast more strongly with the white markings. The elytra are more evidently subcostate than in *mixtus,* the lateral costa being quite well marked though obtuse, and the antennal scape is as a rule shorter and more thickened apically, being but slightly more than twice as long as wide. The size is little greater than in the average *mixtus.* Three specimens are before me bearing labels as follows: "Telluride,

Colorado," 9000 feet; "Colorado," and "Cloudcroft, New Mexico." There is a single example, labeled simply "Col." in the Le Conte collection and placed with *mixtus*.

This is evidently the form referred to by Hamilton ("Trans. xxiii, p. 135) as Le Contes *simplex;* an erroneous determination, however, the true *simplex* being in no appreciable way different from typical *mixtus*. In the original description of *simplex* the apices of the elytra are said to be rounded, but a recent examination of the type by the writer shows them to be truncate and feebly sinuate, the sutural angle slightly prominent.

The following table is offered for the separation of the twelve species now known to us:

SYNOPTIC TABLE.

Elytra each with a strong subbasal discal crest; sides of body and legs with long flying hairs, antennae with moderate hairs; outer apical angle of elytra spiniform. 7–9½ mm. California; Van couver Island . . . . . **crinitis** Lec.

Elytra not or but feebly cristate at base.

Legs and antennae with long flying hairs; apex of elytra rounded.

Lateral tubercle of prothorax acute, spiniform. 5–8 mm. Lower California . . . . . **volitans** Lec.

Lateral tubercle of prothorax obtuse.

Elytral disk with yellowish brown area which extends forward laterally to the humeri, and posteriorly as a gradually narrowing sutural stripe nearly to the apex; last ventral of female foveate at apex. 9.5 mm. Arizona . . . . . **negundo** Schaef.

Elytral disk with a somewhat diffuse grayish area just before the middle, not extending backward along the suture; apex of last ventral of female broadly obliquely ascending or beveled but not foveate. 7–9 mm. Arizona. . . . . **obscurus** n. sp.

Legs and antennae without long flying hairs.

Elytral apices rounded.

Elytra and prothorax clothed uniformly with gray pubescence, with a few small tufts of short black hairs on the elevated intervals. 6¼ mm. Tulare Co., Cal. . . **californicus** Schaef.

Elytra clothed with gray pubescence in about basal half and apical third, the intermediate area forming a broad transverse black fascia. 8–9 mm. Idaho, Oregon, California . . **oregonus** Lec.

Elytral apices emarginate, with more or less distinct limiting angles.

Elytra each tricostate, the lateral costae strong, the inner one feebler and bearing a series of four or five tufts of erect black hairs.

Lateral costa strong throughout, the antemedian pale spot or fascia sharply defined and not extending forward within the humeri . . 4½–6 mm. Maine to Colorado. . **penicellatus** Lec.
6 mm. Alaska . . . . . **alaskanus** Schaef.

Lateral costa feeble or subinterrupted near the humerus; anterior pale area less sharply defined, reaching the base within the humeri. 9 mm. San Bernardino Mts., California.
propinquus n. sp.

Elytra without strongly marked costae.

Fulvous, thorax and elytra at sides with some darker spaces, each elytron with an anterior oblique pale fascia and behind this a row of three tufts of erect black hairs. 13 mm. Arizona.
arizonicus Schaef.

Brownish or piceous elytra without tufts of erect hairs.

Subbasal pale area denser, not reaching side margin, antennal scape stouter, elytra subcostate. 5½–7 mm. Colorado, New Mexico . . . . . **pictus** n. sp.

Subbasal pale area reaching side but usually not the suture; scape less stout, elytra not costate. 4–7 mm. Greater part of United States . . . . . **mixtus** Lec.

According to Schaeffer *alaskanus* differs from *penicellatus* in its "much darker color, the rounded apical angles of the elytra and the shorter first joint of the hind tarsi." The outer apical angle of the elytra is more or less completely rounded in some specimens of *penicellatus* and as no comparative measurements are given of the basal joint of hind tarsi, the characters seem rather too vague to incorporate in the table.

The length given for *arizonicus*—13 mm.— is very great for a species of *Pogonocherus* and is possibly an error.

Penicellatus, alaskanus, propinquus and *arizonicus* agree among themselves and differ from all others in having a small smooth oval tubercle on the median line of the pronotum posteriorly. The first three further agree in having the elytra rather strongly costate and with a single subsutural row of tufts of short erect hairs. *Arizonicus* has a single row of such tufts, but the description does not say whether they are near the suture or not, nor does it mention any elytral costae: and since it is compared by its author with *mixtus*, the presumption is that the elytra are without distinct costa as in that species.

Secondary sexual characters in this genus are chiefly manifest at the abdominal apex. The last ventral of the male is not modified, the apex broadly rounded. In the female of all the species known to me except *crinitus* the last ventral is either foveate or obliquely ascending at apex, the margin more broadly rounded or truncate. In Mr. Schaeffer's description of *negundo* the apex of the last ventral is said to be broadly emarginate in the male and broadly rounded in the female. It is probable that he mistook the sexes and the characters should be reversed. Le Conte says of *mixtus*—"The male has the thorax finely rugose," and of *parvulus* (merely a small *mixtus*) "the thorax of the male is finely rugous, that of the female smooth." Hamilton says that the thorax of the male (*mixtus*) is very closely aciculate, that of the female smooth. These differences are not at all apparent in my own series, and I I am forced to consider them imaginary; in fact I find that the two specimens of *parvulus* upon which Le Conte's observations were made are both males. The antennæ are as a rule but little longer in the males than in the females.

The greater number of our species of this genus are known to occur on pines. *Crinitus* is found on live oaks, *negundo* on box elder, and *volitans*—from Lower California—can hardly occur on conifers. These three species, moreover, differ from all following by the more strongly developed and acute lateral tubercles of the prothorax.

Supplementary note on *Pogonocherus*.

Since submitting the above to the NEWS, there has appeared an article by Mr. Schaeffer in the September issue of the Journal of the New York Ent. Soc. containing a table of the species of *Pogonocherus* together with the description of still another new species—*concolor*—with doubtful locality but supposedly from California. I am unable to determine with certainty where *concolor* should go in the above table. Mr. Schaeffer does not say whether the lateral tubercle of the prothorax is acute or obtuse, but assuming that it is obtuse as in the greater number of species, and that the erect hairs of the antennæ and legs are not conspicuously long, it would be associated with *oregonus* and *californicus*, from both of which it is at once distinguishable by its uniform yellowish cinereous coloration and the absence of elytral tufts of setae.